

ABSTRACT OF THE DISCLOSURE

The invention includes methods in which at least two different precursors are flowed into a reaction chamber at different and substantially non-overlapping times relative to one another to form a material over at least a portion of a substrate, and in which at least one of the precursors is asymmetric with respect to a physical property. A field influencing the asymmetric physical property is oriented within the reaction chamber, and is utilized to affect alignment of the precursor having the asymmetric property as the material is formed. The asymmetric physical property can, for example, be an anisotropic charge distribution associated with the precursor, and in such aspect, the field utilized to influence the asymmetric physical property can be an electric field provided within the reaction chamber and/or a magnetic field provided within the reaction chamber. The methodology of the present invention can be utilized in atomic layer deposition processes.